UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,861	09/06/2006	Joachim Proksch	R.307204	3440

2119 7590 07/29/2008

RONALD E. GREIGG
GREIGG & GREIGG P.L.L.C.
1423 POWHATAN STREET, UNIT ONE
ALEXANDRIA, VA 22314

EXAMINER	
DESAI, NAISHADH N	

ART UNIT	PAPER NUMBER
2834	

MAIL DATE	DELIVERY MODE
07/29/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/591,861	PROKSCHA ET AL.	
	Examiner	Art Unit	
	NAISHADH N. DESAI	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-33* is/are rejected.

7)☒ Claim(s) *16 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 September 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 9/6/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

3. Claims 16 and 17 are objected to because of the following informalities: It is not clear what applicant refers to by "...the ribs being disposed one above the other...". Appropriate correction is required.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "the ribs being disposed one above the other..." must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14-17, 24-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagasaki et al (US 6127760).

5. Regarding claim 14, Nagasaki et al teaches:

A primary element for an electrical machine, comprising (pre-amble, patentable weight not given):

a magnetically conductive body assembled from laminations resting axially on one another and having a plurality of axially extending teeth disposed in a star pattern (abstract and Fig 5),

a winding of individual annular coils which are wound separately as coil-body-less air coils and thrust radially onto the teeth (Figs 5 and 6 and C 1 ll 31-37),

a compensation element on at least one face end of the magnetically conductive body (Fig 5,9), the compensation element being elastically deformable in the axial direction of the tooth (Col 5 l 17, synthetic resin is known to have deformable properties) and being placed onto each of the face ends, located in a transverse plane to the body axis, of the teeth (Fig 5,8,9), and

the annular coil which is thrust onto the tooth being pressed axially onto the at least one compensation element (Figs 5 and 6), and

a closed ring element joining all the compensation elements together to make a compensation mask (Fig 5,8,9).

6. Regarding claim 15, Nagasaki et al teaches (Fig 5) a compensation mask to be provided on each face end of the magnetically conductive body.

7. Regarding claims 16 and 17, Nagasaki et al teaches (Fig 5) parallel ribs embodied on the outer face, facing away from the tooth, of the compensation elements (Fig 5,6b), the ribs being disposed one above the other and spaced apart from one another in the radial direction of the tooth (Fig 2,6D).

8. Regarding claim 24, Nagasaki et al teaches the ring element is formed by a preferably thin-walled annular sleeve (Fig 5,10), from whose outer wall the compensation elements protrude in a star pattern (Fig 5,7a).

9. Regarding claim 25, Nagasaki et al teaches the annular sleeve comprises a protruding portion, which protrudes axially past the transverse struts of the compensation elements (Fig 1,6a-e and 10) and which, when annular coils have been placed on the teeth, covers the undersides of the coil heads of the annular coils (Fig 5,8 and 9)

10. Regarding claims 26 and 27, Nagasaki et al teaches the annular sleeve and the compensation elements are made in one piece (Fig 5,10) as a plastic injection-molded part (Col 5 ll 16-19).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasaki et al (US 6127760).

11. Regarding claims 18-21, Nagasaki et al teaches that the compensation element has the shape of a U with a transverse strut embodied in gable-like fashion and two short legs of the U integrally extending from the transverse strut (Fig 5,6A and 6B); and wherein the transverse strut covers the face end of the tooth, and the legs of the U reach over the long sides, facing away from one another, of the tooth (Fig 5,6A and 6B). Nagasaki et al teaches also that the ribs are shaped in one piece from the gable-like transverse strut (Fig 2, 6D). Nagasaki et al discloses the claimed invention except for the shape or size of the strut to be in the shape of a gable. It would have been a matter of obvious engineering design choice to make the strut in the shape of a gable, since such a modification would have involved a mere change in the shape of a component. based on the configuration of the stator's size/shape as well as the location of the rotor as in inner rotor or the outer rotor with respect to the stator. The motivation would be based on the parameters of space availability, stator's and housing's size/shape,

location of the rotor with respect to the stator, as well as size/ and shape of the stator to determine the shape or size of the strut.

12. Regarding claims 22 and 23, Nagasaki et al teaches the claimed invention except for the shape or size of the gable-like transverse strut to allow for a spring travel to be present for resilient retraction. It would have been an obvious matter of design choice to make a spring travel present for resilient retraction of the transverse strut between the gable faces and the face end of the tooth, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Rose, 105 USPQ 237 (CCPA 1955).*

Claims 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasaki et al (US 6127760) and in view of Uchida et al (US 5763978)

13. Regarding claims 28-30, Uchida et al teaches one insulation strip each resting on the one hand between the long sides (Fig 3,32 of Uchida et al), facing away from one another (Fig 3 of Uchida et al), of the teeth and on the other between the inner long sides, oriented toward the aforementioned long sides (Fig 3 of Uchida et al), of the annular coils pressed onto the teeth (Fig 3 of Uchida et al).

Nagasaki et al teaches the device as claimed above. Nagasaki et al do not teach the use of insulating strip disposed as claimed. Uchida et al teaches the use of insulation strips. It would have been obvious to a person having ordinary skills in the art at the

time the invention was made to modify the device of Nagasaki et al to use the insulation strips of Uchida and dispose them. The motivation to do so would be to insulate the core electrically and allow desired flexural repulsiveness when force is applied or removed (abstract of Uchida).

14. Regarding claim 31, Uchida et al (abstract and Fig 1,10) teaches one insulation strip to be secured, to each of the inner long sides, oriented toward one another, of the annular coils. Uchida et al disclose the use of insulating strips also it is well known in the art to use glue to attach or secure an element.

15. Regarding claim 32, Uchida et al teaches, the insulation strips are angled, on the top side pointing outward of the annular coils (Fig 3,36 of Uchida et al), for the sake of covering these annular coils (Col 4 ll 51-62 of Uchida et al).

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasaki et al (US 6127760) and in view of Hsu (US 6400059).

16. Regarding claim 33, Hsu teaches a hollow-cylindrical short-circuit yoke (Fig 1,611 of Hsu), which is slipped onto the outward- pointing, free tooth faces of the teeth equipped with the annular coils (Fig 1 of Hsu).

Nagasaki et al teaches the device as claimed above. Nagasaki et al do not teach the use of hollow-cylindrical short circuit yoke disposed as claimed. Hsu teaches the use of a hollow-cylindrical short-circuit yoke slipped onto the teeth equipped with the annular

coils. It would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the device of Nagasaki et al to use a short circuit yoke as taught by Hsu. The motivation to do so would be that it would provide a motor having high operation efficiency (Col 2 l 36 of Hsu).

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 for details.

Response to Arguments

18. Applicant's arguments with respect to the rejection(s) of claim(s) 14-33 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

19. Examiner understands the Terrone reference did not show up as part of the listing on the PTO-892 form, due to some error. Examiner has made sure that the Terrone reference is listed properly prior to electronic submittal of case.

20. According to § 2111 of the MPEP, claims must be given their broadest reasonable interpretation. A portion of this section is cited below for the practitioner's convenience:

> During patent examination, the pending claims must be "given *>their< broadest reasonable interpretation consistent with the specification." >*In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000).< Applicant always has the

opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. See *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naishadh N. Desai whose telephone number is (571) 270-3038. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

7/20/08

/Dang D Le/
Primary Examiner, Art Unit 2834

Naishadh N Desai
Patent Examiner